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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,433	02/01/2002	Bryan Scott	Scott.00001	9424

7590 07/07/2004

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EXAMINER	
CHEN, ALAN S	

ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 07/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/053,433	SCOTT ET AL.	
	Examiner	Art Unit	
	Alan S Chen	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04/23/2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED FINAL ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1 and 7-13 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the following claims of copending application: claims 1-4, 6-13, 15 and 16 of copending Application No. 10/051264; claims 7 and 9 of copending Application No. 10/093921; claims 1-4,6-13, 15 and 16 of copending Application No. 10/061997; claims 1, 2, 11, 12, 14, 15, 18 and 20 of copending Application No. 10/093779. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "160" has been used to designate multiple different ports. A proposed

drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 158 in Fig. 1, 200 and 218 in Fig. 2. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities: acronym "IDS" should be defined upon first use on page 3, line 16, immediately after the terms "intelligent docking station".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by No. US 20020103951A1 to Huber et al. (hereafter Huber).

3. As per claim 1, Huber discloses an intelligent docking station (IDS) system, comprising: a docking station (Fig. 6, element 600) having a co-processor (Fig. 4B, element 475) capable of converting a hand held-based data element (Fig. 4B, element 400, the PDA) into a device enabled data element (Fig. 4B, element 475; a bus that couples the docking station to a handheld computer (Fig. 5, elements 440, 445, 465 and 470); a handheld computer having a processor operated by a first operating system (Fig. 4A, element 405 and paragraph 8); the co-processor being operated by a second operating system (Fig. 4A, element 400 and paragraph 6), the second operating system communicating with a top-level driver capable of formatting handheld-based data element into a device enabled data element (claim 16 of Huber discloses the PDA and laptop sharing the same display, e.g., the display on the laptop. In order for a video signal to be sent to from the PDA to the display, the video data must be sent through the interface between the PDA and laptop, via a low-level driver and once in the laptop, in order to display this data, the laptop must have a top-level driver to display data on the monitor via the video controller, Fig. 4A, element 420), and also enabled to deliver the device enabled data element to a low level device driver (docking station sends commands/data to the a peripheral attached to the laptop, e.g., Fig. 4A, element 430); and a device coupled to the docking station, the device capable of receiving the device enabled data element from the low level driver (Fig. 3, element 315 and paragraph 26, the display can be used as common display, for instance, if rendering a picture, the PDA can help speed up the rendering time).

4. As per claim 2, Huber discloses claim 1, wherein the device is a monitor (Fig. 4A, element 410).

5. As per claim 3, Huber discloses claim 1, wherein the device is a mouse (Fig. 1, element 130).

6. As per claim 4, Huber discloses claim 1, wherein the device is memory (paragraph 5, laptop has memory, e.g., cache/RAM or hard drive)

7. As per claims 5 and 14, Huber discloses claims 1 and 13, wherein the bus is a wireless connection (paragraph 37).

8. As per claim 6, Huber discloses claim 1, wherein the device coupled to the docking station is integrated with the IDS (e.g., laptop display screen or memory in the laptop).

9. As per claim 10, Huber discloses a software system for an intelligent docking station (operating system, specifically for the case of transferring video data from the PDA to the laptop display), comprising an IDS operating system (paragraphs 5 and 8); a communication driver, the communication driver capable of sending and receiving bus-enabled data elements (the disparate operating systems between the PDA and laptop require conversion in order or the commands from one operating system to be executed by the other); a low-level device driver, the low-level device driver capable of sending and receiving device-based data elements (e.g., video data to be sent from the PDA to the laptop need a driver to send over the interface between PDA and laptop), a top-level driver, the top-level device driver capable of assembling and formatting data elements for a low-level device driver (e.g., video data sent over from the PDA through low level driver is formatted and assembled by top level driver in order to be displayed on screen); the IDS operating system adapted to communicate with a first operating system for a handheld computer having a processor (e.g., both operating systems communicate in order to know when to use the PDA processor vs. when to use the laptop processor depending on power constraints); and the IDS operating system being adapted to execute via a co-processor communicating with the top-level driver, and also enabled to deliver a device enabled data element to the low-level device driver (e.g., the laptop's processor rendering graphics necessitates communication between the operating system to the video controller, Fig. 4A, element 420 and finally down to the monitor/display. In this example several layers of communication and hence several layers of drivers).

10. As per claims 7-9 and 11, Huber discloses claims 1 and 10, further comprising a communication driver integrated with the IDS or handheld, the communication driver capable of converting signals between a bus-enabled data element and an IDS enable data element (Fig. 5, element 440, the communication between PDA and laptop inherently requires a communication driver to convert signals from PDA to laptop. The laptop operates under standard I/O such as serial, parallel, USB protocols, but the PDA does not. The difference in operating systems of the PDA and laptop further necessitates a conversion/translation between communication signals. Here, top-level drivers are intermediary between the OS and low-level device drivers).

11. As per claim 12, Huber discloses a software system for enabling a handheld computer to use an intelligent docking station (Fig. 6, using the specific instance when the docking station and PDA share the same display, e.g., the display on the docking station), the system comprising: an IDS operating system (paragraph 5 and 8); a low-level driver in communication with the IDS operating system (e.g., the PDA has a video signal that needs to be sent from the PDA to the laptop, thereby requiring a low level driver that can communicate with the PDA to laptop interface); a top-level device driver in communication with the IDS operating system (e.g., in order to access/operate video display screen, a top level device driver is needed); a communication driver in communication with the top level device driver, the communication driver capable of converting signals between a bus-enabled data element and a handheld data element (the disparate operating systems between the PDA and laptop require conversion in order or the commands from one operating system to be executed by the other); the IDS operating system adapted to communicate with a first operating system for a handheld computer having a processor (e.g., both operating systems communicate in order to know when to use the PDA processor vs. when to use the laptop processor depending on power constraints); and the IDS operating system being adapted to execute via a co-processor communicating with the top-level driver, and also enabled to deliver a device enabled data element in the low-level device driver (e.g., the video data is sent from the handheld via low-level device driver and then processed and enabled by the top-level driver to be displayed on the shared monitor).

12. As per claim 13, Huber discloses claim 12 further comprising a bus coupled between the communication driver and a second communication driver located in a handheld (Fig. 5, also on both the PDA and laptops ends, inherently require a driver to communicate between the two devices)

13. As per claim 15, Huber discloses claim 13, further comprising a top-level device driver coupled between the second communication driver and a handheld OS (the display driver for the PDA display screen sits between the I/O driver and the PDA OS).

14. As per claim 16, Huber discloses claim 12 wherein the low-level device driver is a keyboard driver (Fig. 1, element 125).

15. As per claim 17, Huber discloses claim 12, wherein the low-level device driver is a monitor driver (Fig. 1, element 105).

16. As per claim 18, Huber discloses claim 12, wherein the low-level device driver is capable of reading and writing data to memory (Fig. 4A, element 415).

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

18. Claims 19 and 20 are rejected under 35 USC 103(a) as being unpatentable over Huber.

Huber discloses claim 12.

Huber does not disclose expressly the bus being Bluetooth or an optical bus.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use a Bluetooth or optical bus depending on the application and environment Hubers device is being used for.

The suggestion/motivation for doing so would have been if the PDA is needed to be move around within a short proximity, and not physically plugged into the docking station, a Bluetooth network would be ideal. If the data being transferred between the PDA and laptop requires a lot of bandwidth, then the optical bus is ideal.

Therefore, it would have been obvious to use Bluetooth or an optical bus for the benefit of mobility or bandwidth.

Response to Arguments

19. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to intelligent docking stations:

U.S. Pat. No. US005278730A to Kikinis

U.S. Pat. No. US005313596A to Swindler et al.

U.S. Pat. No. US005396400A to Register et al.

U.S. Pat. No. US005489773A to Kumar

U.S. Pat. No. US005581766A to Spurlock

U.S. Pat. No. US006101087A to Sutton et al.

U.S. Pat. No. US006744740B2 to Chen

U.S. Pub. No. US 20030120849A1 to Roslak

U.S. Pub. No. US 20030145148A1 to Zhang et al.

U.S. Pub. No. US 20030142089A1 to Myers

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S Chen whose telephone number is 703-605-0708. The examiner can normally be reached on M-F 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on 703-308-3301. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASC
06/30/2004

PAUL R. MYERS
PRIMARY EXAMINER